(No Model.)

Z. S. & M. C. RANDLEMAN.

ADJUSTABLE TONGS, &c.

No. 519,774. Patented May 15, 1894.

Fig. 1.

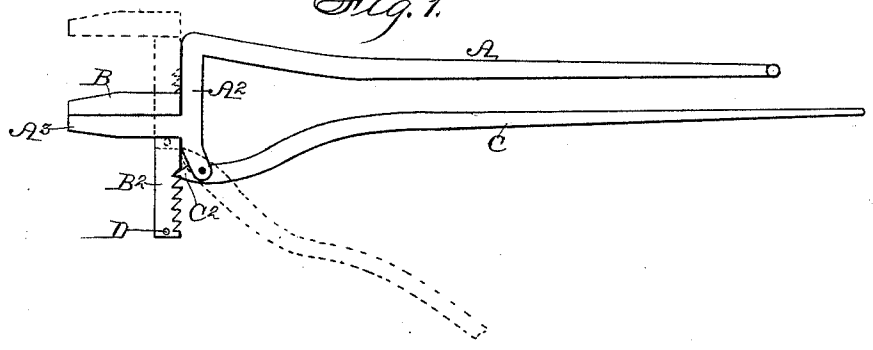


Fig. 2.

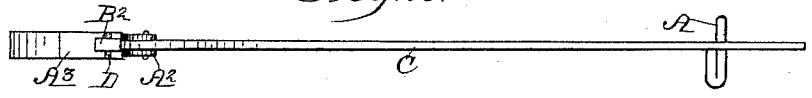
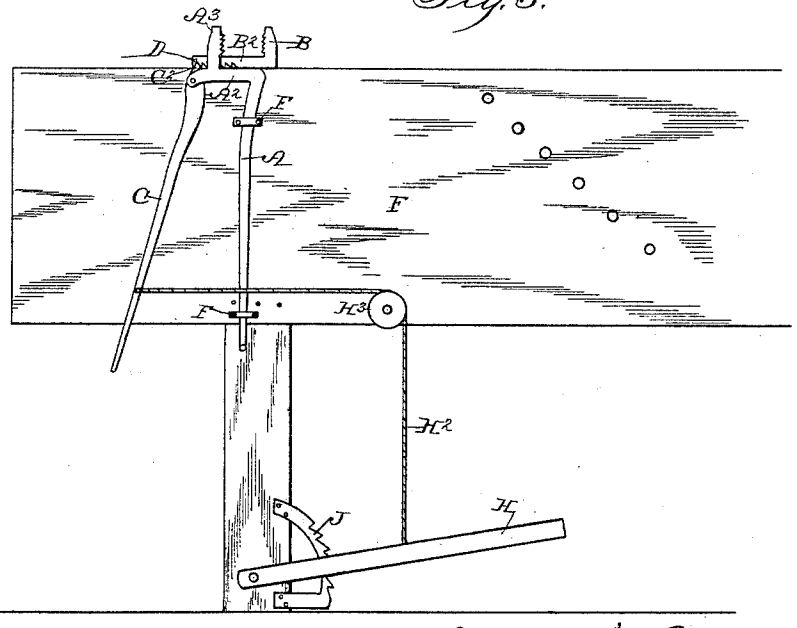


Fig. 3.



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ZOUAVE S. RANDLEMAN AND MARTIN C. RANDLEMAN, OF CARLISLE, IOWA.

ADJUSTABLE TONGS, &c.

SPECIFICATION forming part of Letters Patent No. 519,774, dated May 15, 1894.

Application filed October 6, 1893. Serial No. 487,403. (No model.)

To all whom it may concern:

Be it known that we, ZOUAVE S. RANDLEMAN and MARTIN C. RANDLEMAN, citizens of the United States of America, residing at Carlisle, in the county of Warren and State of Iowa, have invented an Improved Adjustable Tongs, Wrench, and Vise, of which the fol lowing is a specification.

The object of our invention is to provide a simple, cheap, and durable device adapted for use by blacksmiths as a pair of tongs, or for use as a wrench, or vise and which may be readily set to a position approximately corresponding in size to the object to be grasped, and then made to firmly engage said object by bringing the handles thereof together.

Our invention consists in details in the construction, arrangement and combination of the parts of the device, as hereinafter set forth, pointed out in our claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a view of the complete device with the jaws shown extended by dotted lines. Fig. 2 is an edge view of the same. Fig. 3 is a view of the device adapted for use as a vise, and applied to a bench.

Referring to the accompanying drawings the reference letter A is used to designate the stationary handle having its outer end A^2 bent at right angles and a jaw A^3 formed thereon, said jaw having an angular opening formed therein in proximity to, and parallel with, the part A.

B designates the sliding jaw of about the same size and shape as the jaw A^3 and having a rack B^2 formed on its inner end to enter the said opening in the part A^3.

C designates the movable handle, pivotally mounted in the outer end of the part A^2 beyond the jaw A^3 and having its end pointed at C^2 to engage the rack B^2. The teeth of said rack and the end of said movable handle are so arranged relative to each other, that when the handle is swung outwardly away from the stationary handle a sufficient distance, the rack will not engage it, thereby allowing the movable jaw to be adjusted relative to the other one, and when the handles are brought together, the end of said movable handle will engage said rack and when moved farther will bring said jaws forcibly together.

D is a pin extended transversely through the outer end of said rack with its ends projecting laterally beyond the face thereof to engage the sides of the opening in the jaw A^3 and prevent the movable jaw from being entirely removed.

In adapting the device for use as a vise, we prefer to employ the following mechanism: F, F, designate clips secured to the side of a suitable bench F^2 to receive the stationary handle and firmly hold it in place.

H designates a lever fulcrumed to a suitable part of the bench to serve as a treadle and H^2 a rope fixed thereto passed over a direction pulley H^3 and attached to the movable handle, so that a downward pressure upon the treadle will bring the jaws together.

J is a segmental rack adapted to be engaged by a pawl fixed to the said treadle hold it in any position and thereby hold the jaws together.

It is obvious that the jaws may be serrated or toothed, as shown in Fig. 3, and adapted to grip a round rod or tube as well as angular objects.

Having thus described our invention, what we claim as new therein, and desire to secure by Letters Patent of the United States therefor, is—

1. An improved tongs, comprising a handle A, having a portion A^2 bent at right angles thereto and terminating in a bearing as shown, a jaw A^3 projecting outwardly from the part A^2, a jaw B in the same plane as the jaw A^3 and provided with a rack B^2 bent at right angles to the jaw and extended through a slot in the base of the jaw A^3, a lever C pivoted in the bearing on the part A^2 as set forth, and having its end C^2 adapted to engage the rack B^2, all arranged and combined, substantially as, and for the purposes, stated.

2. An adjustable tongs, for holding small and large objects, composed of three parts, to wit: a handle that has a right-angled bend terminating in a bearer for a mating handle, a fixed jaw extended forward from said right-angled bend and provided with an opening

at its rear end, a mating jaw that has an arm extending at right angles from its rear end detachably and adjustably connected with the fixed jaw and the rear face and free end portion of said arm notched, and a mating handle pivoted to the bearer at the end of the right angled part of the handle having the fixed jaw to engage the notched part of the arm extending from the sliding jaw, to operate in the manner set forth.

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